

FIG. 1  
PRIOR ART

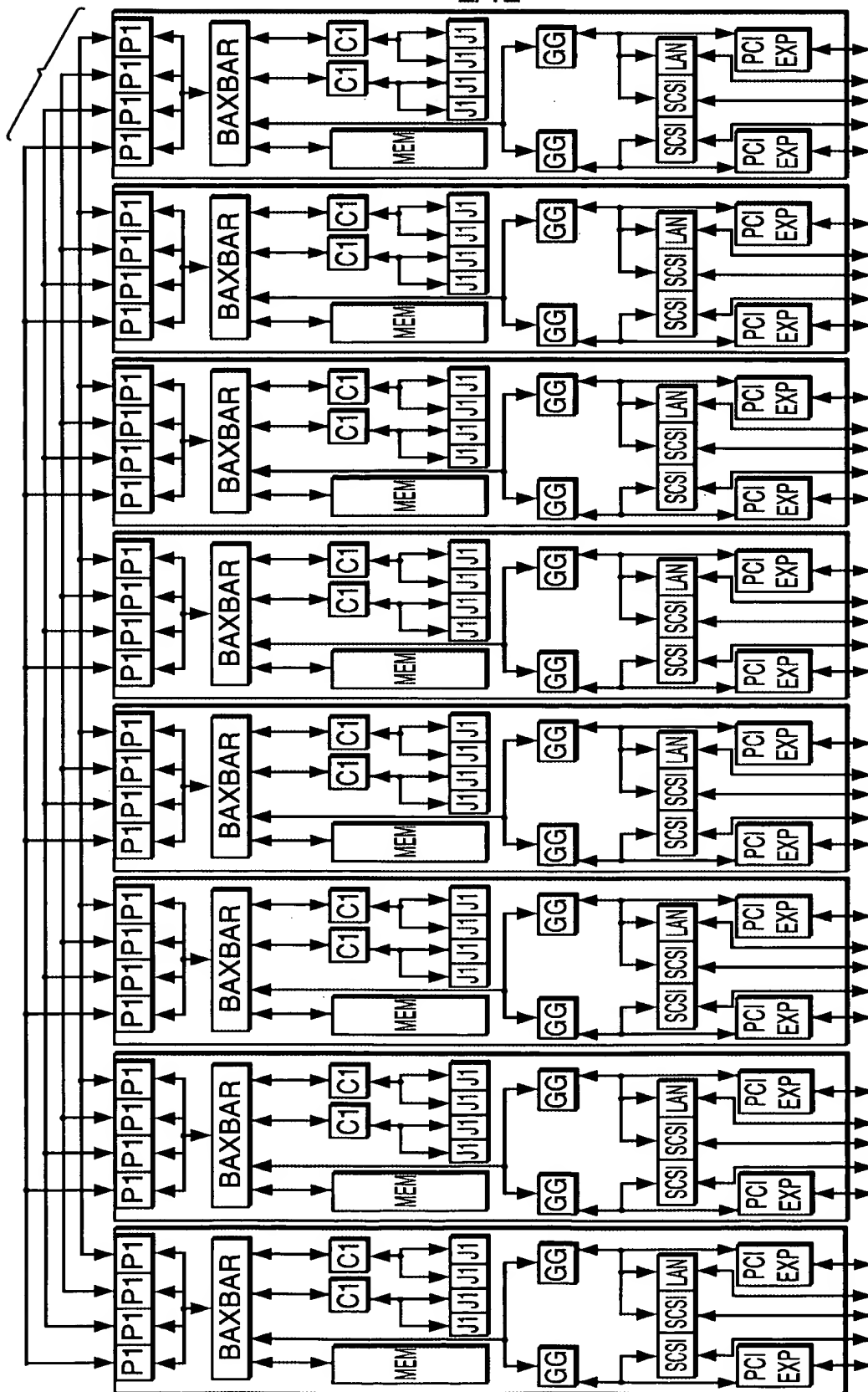


FIG. 2  
PRIOR ART

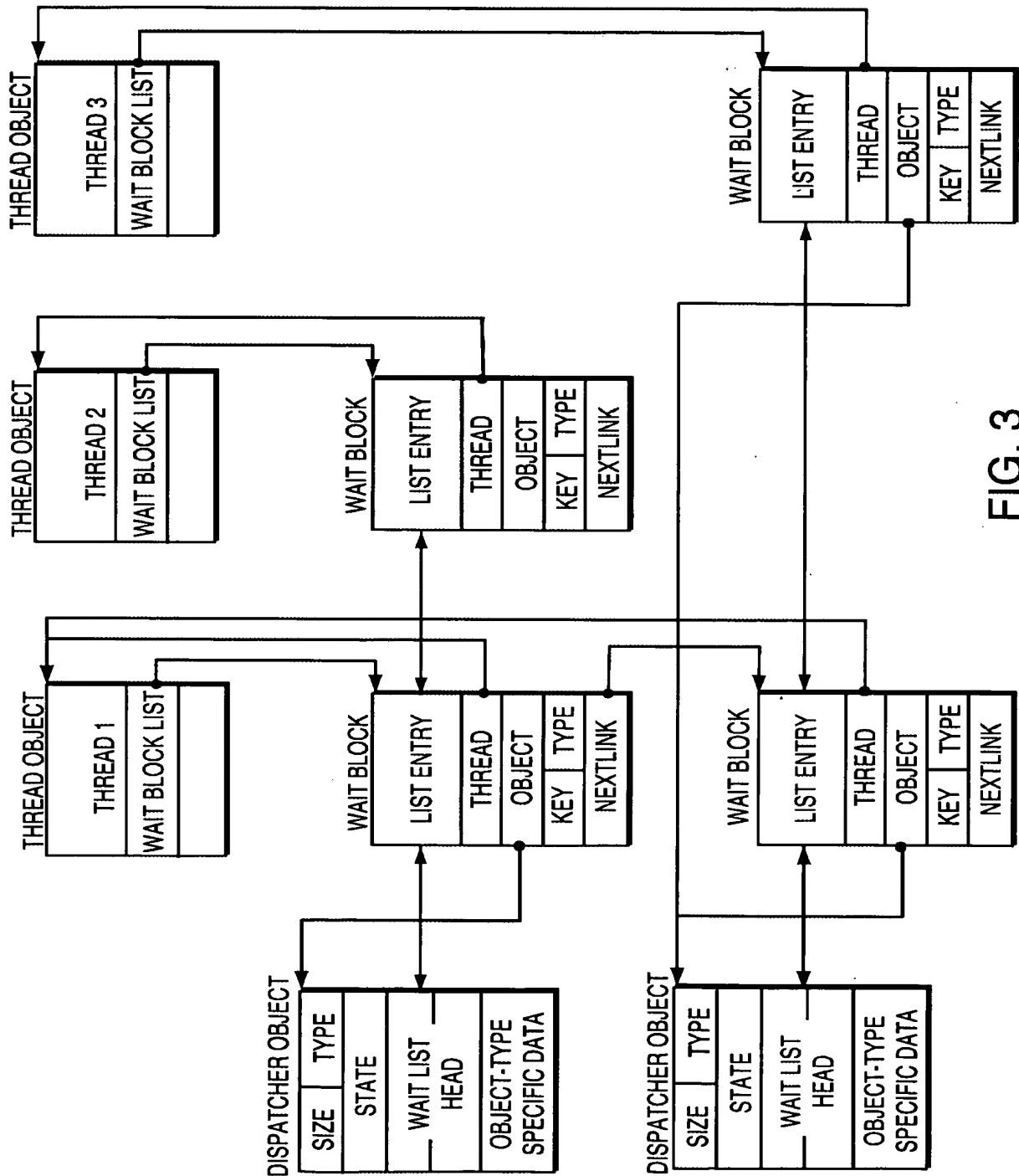


FIG. 3

EFFECT OF SIGNED  
STATE ON WAITING  
THREADSDISPATCHER  
OBJECT

STATE CHANGE

MUTEX  
(KERNEL-  
MODE USE  
ONLY)OWNING THREAD  
RELEASES THE MUTEX.RESUMED THREAD  
ACQUIRES THE MUTEX.KERNEL RESUMES  
ONE WAITING  
THREAD.MUTEX  
(EXPORTED  
TO USER  
MODE)OWNING THREAD OR OTHER  
THREAD RELEASES THE MUTEX.RESUMED THREAD  
ACQUIRES THE MUTEX.KERNEL RESUMES  
ONE WAITING  
THREAD.

SEMAPHORE

ONE THREAD RELEASES THE  
SEMAPHORE, FREEING A RESOURCE.A THREAD ACQUIRES THE  
SEMAPHORE. MORE RESOURCES  
ARE NOT AVAILABLE.KERNEL RESUMES  
ONE OR MORE  
WAITING THREADS.

EVENT

A THREAD SETS THE EVENT.

KERNEL RESUMES ONE  
OR MORE THREADS.KERNEL RESUMES  
ONE OR MORE  
WAITING THREADS.EVENT  
PAIRDEDICATED THREAD SETS ONE  
EVENT IN THE EVENT PAIR.KERNEL RESUMES THE  
OTHER DEDICATED THREAD.KERNEL RESUMES  
WAITING  
DEDICATED THREAD.

TIMER

TIMER EXPIRES.

A THREAD (RE)INITIALIZES  
THE TIMER.KERNEL RESUMES ALL  
WAITING THREADS.

THREAD

THREAD TERMINATES.

A THREAD REINITIALIZES THE  
THREAD OBJECT.KERNEL RESUMES ALL  
WAITING THREADS.

FIG. 4

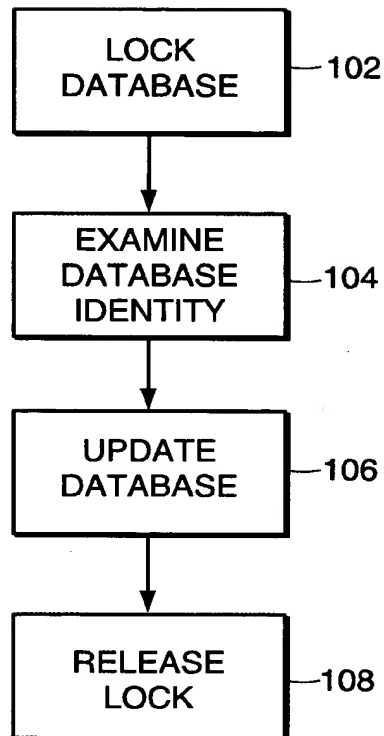


FIG. 5

FIG. 6A	FIG. 6B
FIG. 6C	FIG. 6D

FIG. 6

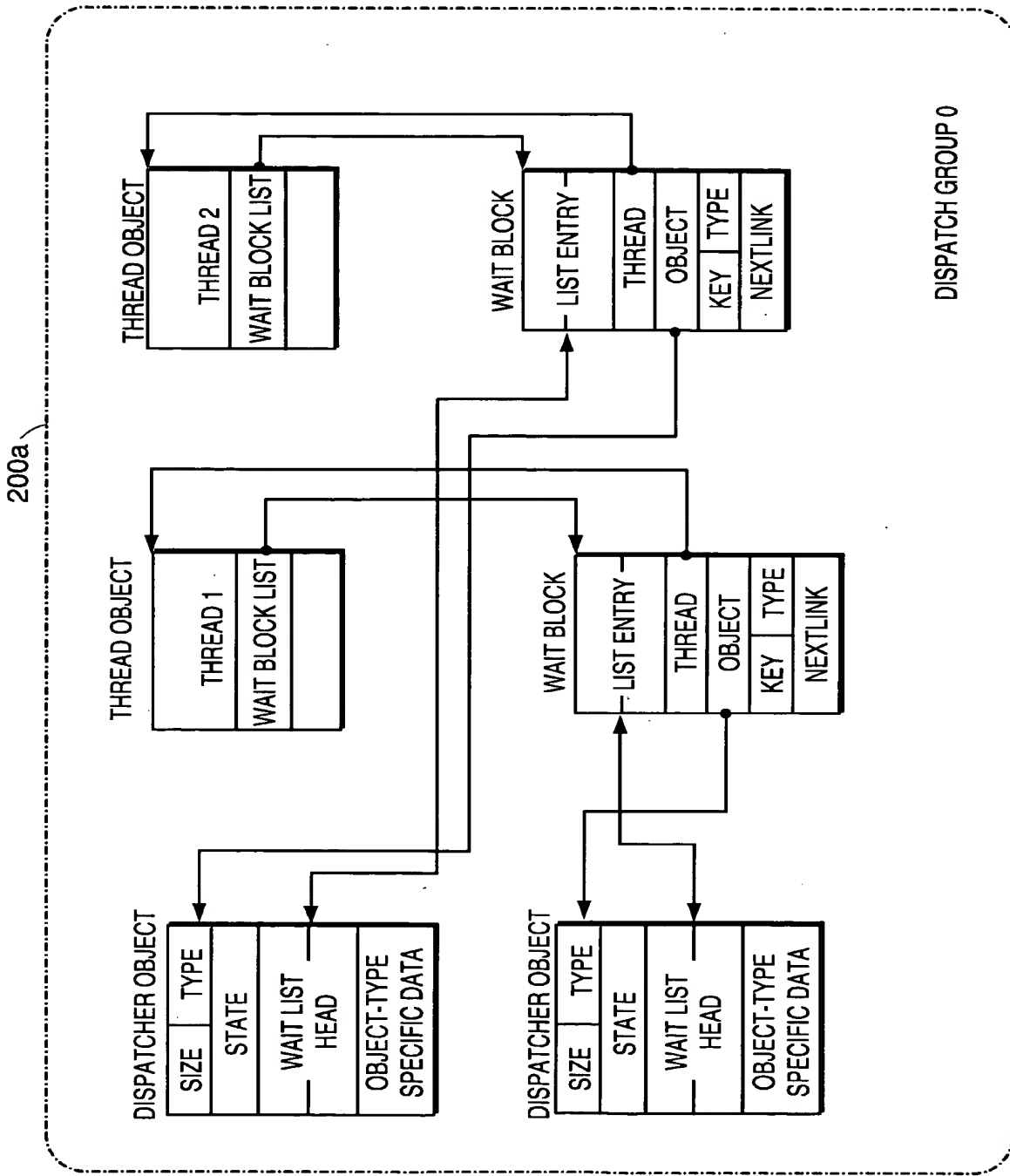
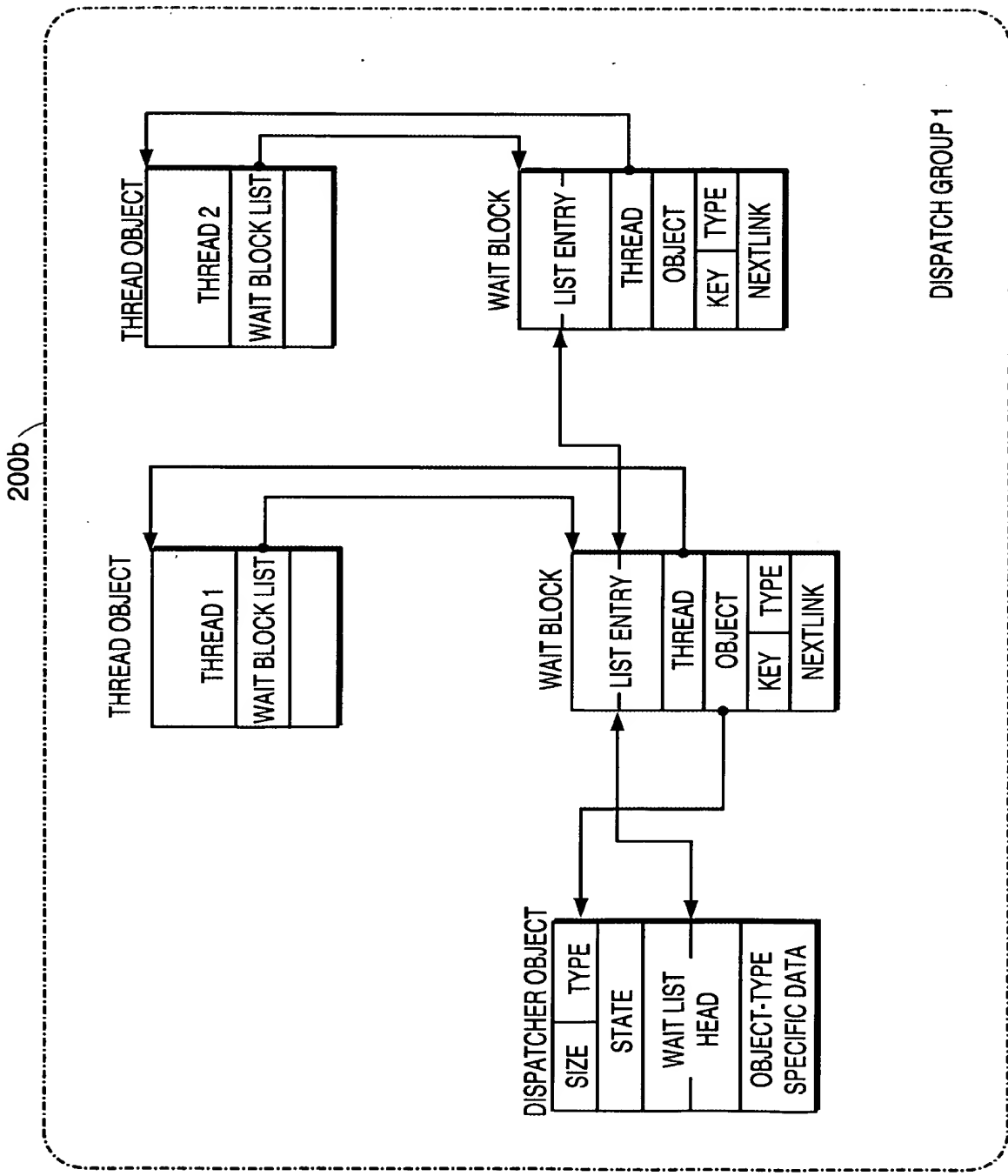


FIG. 6A

FIG. 6B



200c

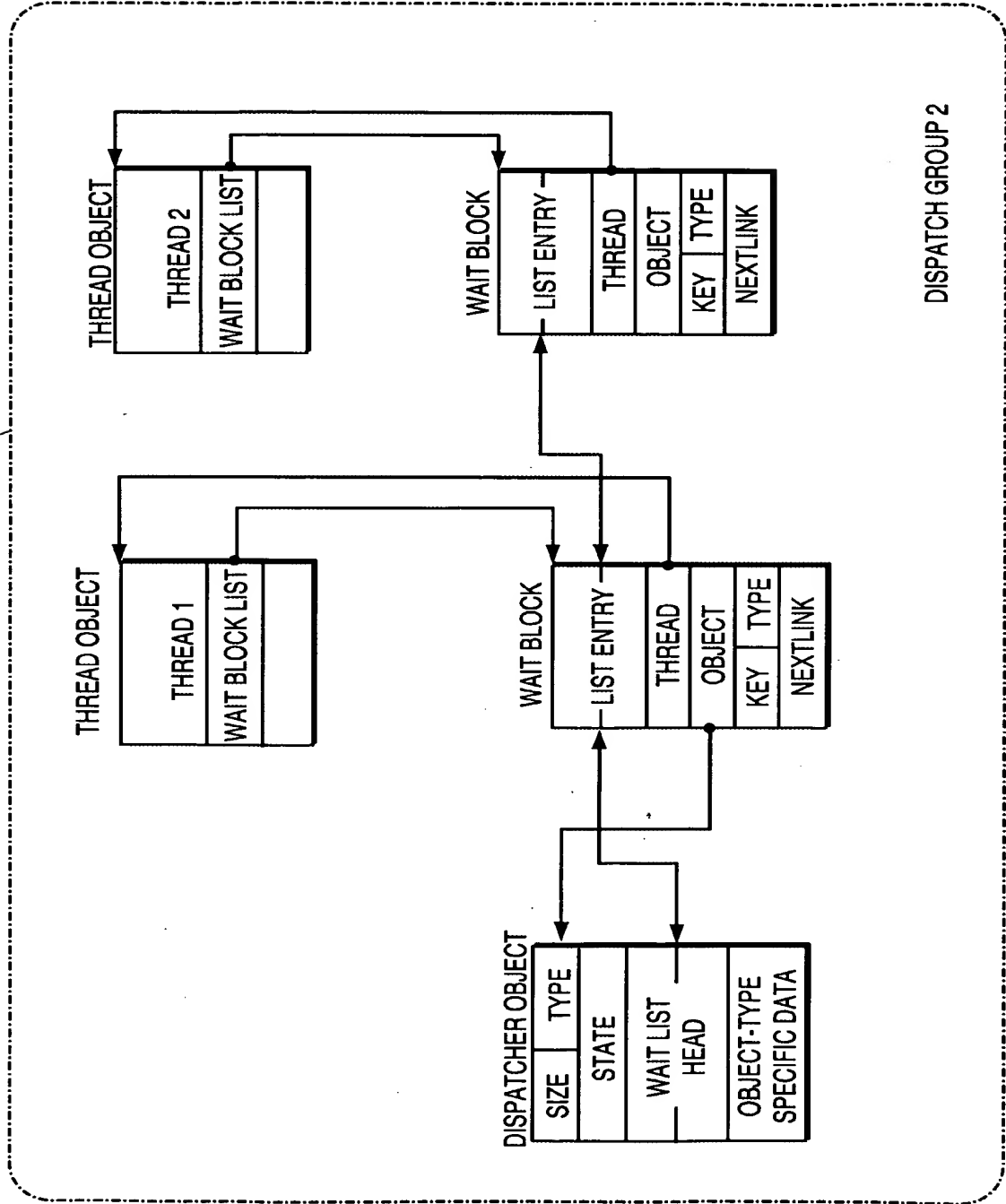
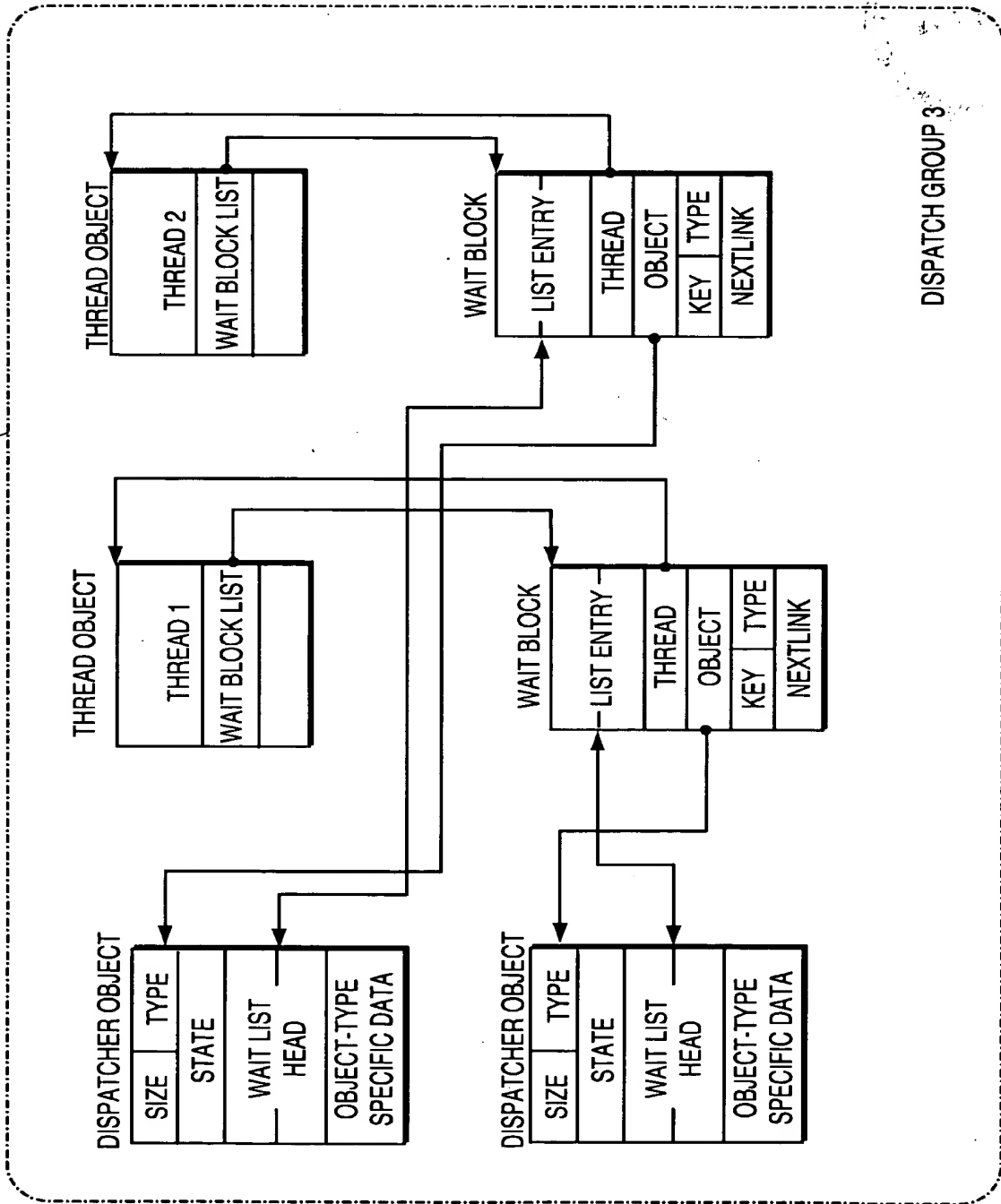


FIG. 6C



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200d



DISPATCH GROUP 3

FIG. 6D

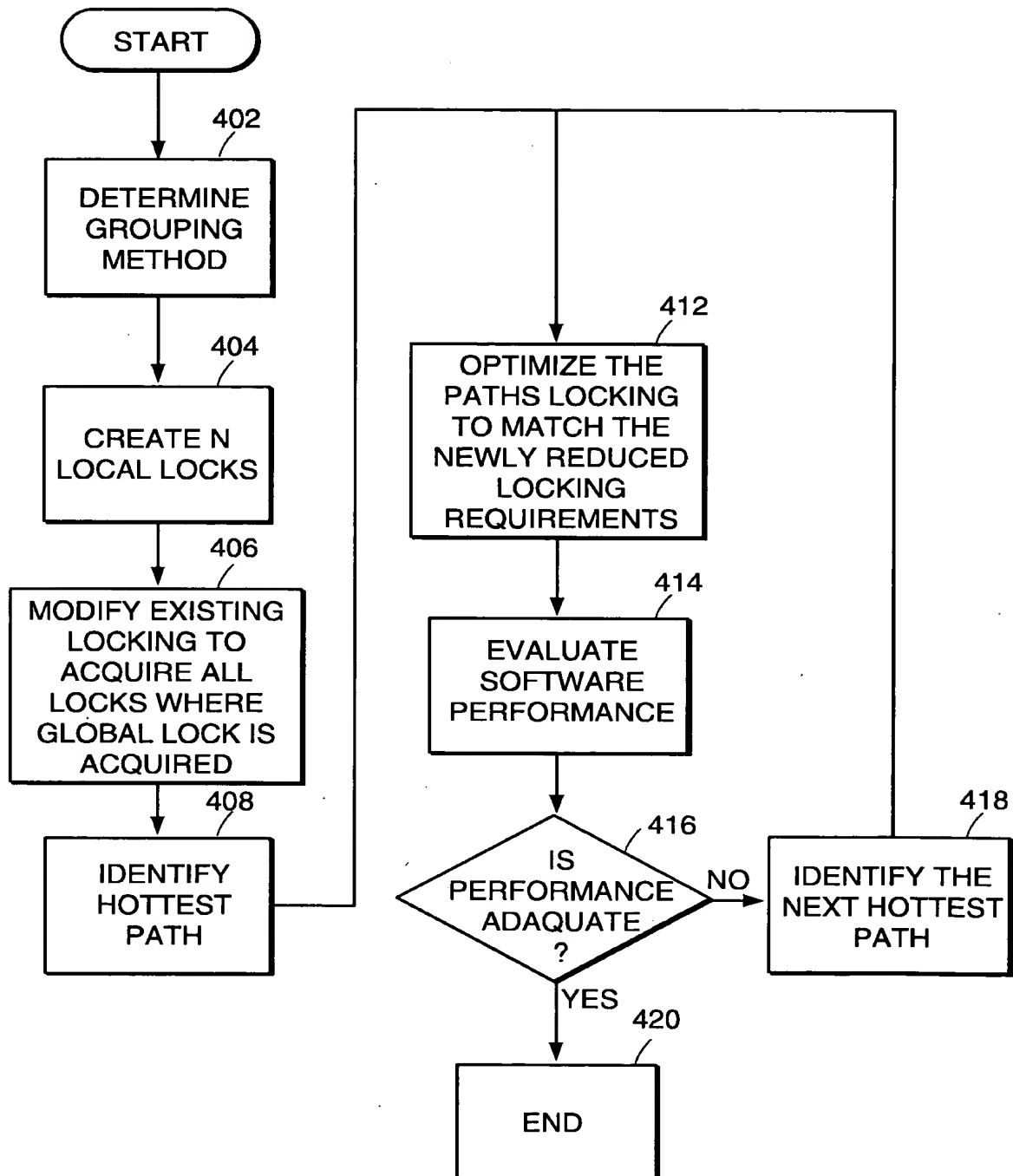


FIG. 7

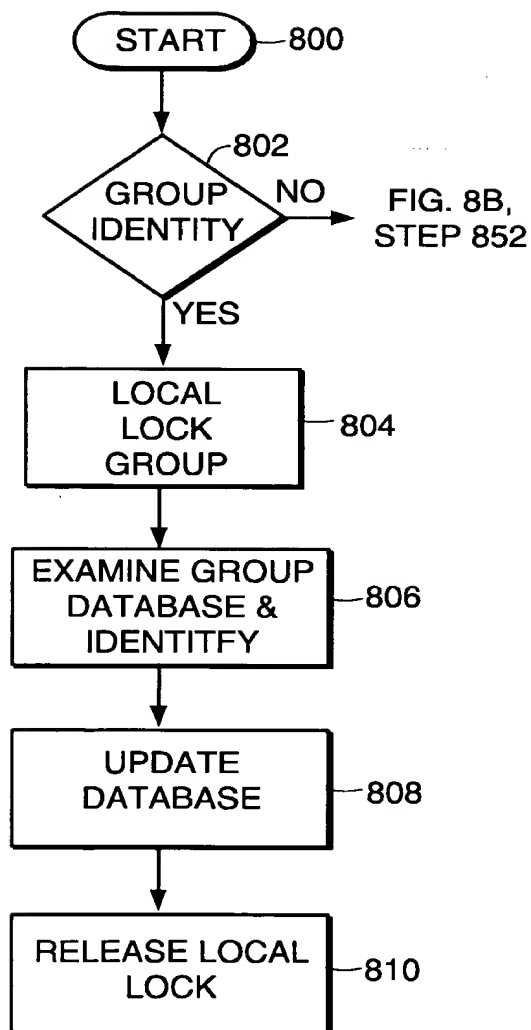


FIG. 8A

STEP 802, FIG 8A

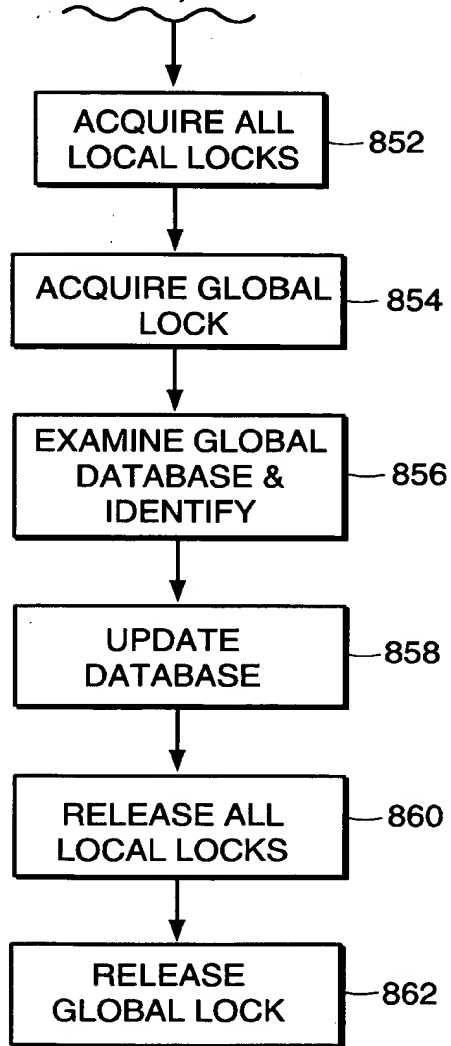


FIG. 8B